

DIFFUSE SENSOR

PBS Series

Diffuse InfraRed LED Sensor with Double Triangulation



Adjustable sensing distance

The PBS-060-Q8 has an adjustable sensing distance from 50 to 600 mm. The distance can be adjusted with the precision 30 turn adjustment screw.

NPN and PNP outputs

Both NPN and PNP outputs are standard on the unit.

Potentiometer adjustment

Two potentiometers (outputs A and B) are built-in to make adjustments to the sensitivity.

CE/UL approval

Conforms to Europe's EMC Directive and has UL recognition for use in the U.S.

Four operating modes

There is a choice of four different operating modes. The sensor can be set to operate as two independent triangulation sensors (A, B), reflections immunity mode (A and B), distance control mode (A xor B) and contrasted objects mode (A or B).

Selectable output operation

The output operation of the sensor can be selected to operate as either Light-On or Dark-On by changing the wiring.

Two outputs

The sensor has two independent outputs. This makes it possible to use as a level control sensor.

Specifications

Model Number	Diffuse Triangulation Sensor	
	PBS-060-Q8	PBS-060-M2
Connection	M8 Quick Connect	2 Meter Connecting Cab
Sensing Distance	50 ~ 600 mm	
Supply Voltage	10 ~ 30VDC	
Current Consumption	< 1.5 watts	
Sensing Output	Two independent outputs with both NPN and PNP open collector transistor operating simultaneousl	
Output Rating	100 mA	
Response time	< 1.8 millisecond - 370 Hz	
Output Operation	Light On / Dark On operation selectable by wiring	
Short Circuit Protection	Incorporated	
Timer	Fixed 40 ms Off delay timer - selectable by wiring	
Emitting Element	Infra-Red LED	
Operation Indicator	Signal A & B, Timer and LO/DO	
Sensitivity Adjustment	Precision 30 turn adjustment screw	
Ambient Temperature	0 to 50°C	
Protection	IP 65	
Housing	Plastic	
Ratings	CE/UL	

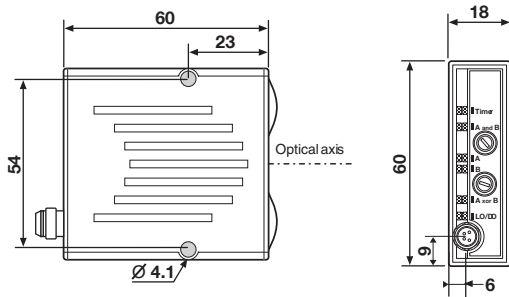
Note: The connecting cable is not included with the quick connect model sensor, please order separately.

Type	Cable Part Number	Length
Q8	M8-FS4-PUR-2M	2 Meter
	M8-FS4-PUR-5M	5 Meter

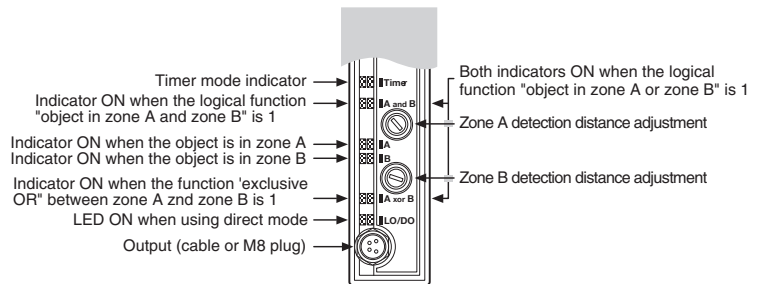
DIMENSIONS (Unit: mm)

PBS-060-Q8

Sensor

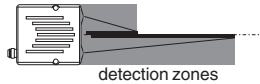


Adjustments

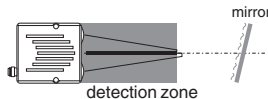


Four operating modes:

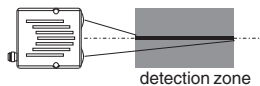
- two independent triangulation sensors (A, B)



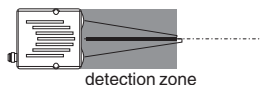
- reflections immunity (A and B)



- distance control (A xor B)



- contrasted objects (A or B)



Wiring Connections and Outputs

DIRECT OUTPUT / DARK ON

TWO INDEPENDENT TRIANGULATION SENSORS (A, B)

Brown: +10/30V
Blue: 0V
Black: ZONE A output
White: ZONE B output

INVERTED OUTPUT / LIGHT ON

Brown: 0V
Blue: +10/30V
Black: ZONE A output
White: ZONE B output

REFLECTIONS IMMUNITY (A and B)

Brown: +10/30V
Blue: 0V
Black: output
White: Blue

TIMER OFF DIRECT INVERSE
0V +10-30V

TIMER ON (40 ms fixed) DIRECT INVERSE
Brown: +10/30V
Blue: 0V
Black: Blue
White: output

DISTANCE CONTROL (A xor B)

Brown: +10/30V
Blue: 0V
Black: output
White: Brown

TIMER OFF DIRECT INVERSE
0V +10-30V

TIMER ON (40 ms fixed) DIRECT INVERSE
Brown: +10/30V
Blue: 0V
Black: Brown
White: output

CONTRASTED OBJECTS (A or B)

Brown: +10/30V
Blue: 0V
Black: output
White: Black

INVERSE OUTPUT
Brown: 0V
Blue: +10/30V
Black: output
White: Black